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PATENT
Attorney Docket No.: A-66828-1/RMS/DCF/KJC
469249-232

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Chee, M.S., et al.

Serial No. 09/189,543

Filed: November 10, 1998

For: *Decoding of Array Sensors with
Microspheres*

Examiner: Marschel, A.H.

Group Art Unit: 1631

#34
Plunkett
5/15/03

CERTIFICATE OF MAILING

I hereby certify that this correspondence, including listed enclosures, is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Commissioner for Patents, Washington, DC 20231 on:

Dated: *April 29, 2003*
Signed: *Deborah Dyson*
Deborah Dyson

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
Washington, DC 20231

Sir:

In satisfaction of the duty of disclosure under 37 C.F.R. § 1.56, and in accordance with the provisions of 37 C.F.R. §§ 1.97 and 1.98, Applicants wish to draw the attention of the U.S. Patent and Trademark Office to the references cited on the accompanying form PTO-1449. Copies of these references are attached.

None of the foregoing references are believed to disclose the invention as claimed. Nothing herein shall constitute an admission concerning the contents of any of the cited references, nor shall the inclusion of a reference herein be considered an admission that the reference constitutes prior art against the invention claimed in the above-identified application.

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Serial No. 09/189,543
Filed: November 10, 1998

Submission of the present document shall not be construed as an admission that a search has been made or that better art does not exist.

As required by M.P.E.P. §2001.06(b), Applicants note that the present application is related to the following patent applications:

| <u>Application Serial No.</u> | <u>Date Filed</u> |
|-------------------------------|-------------------|
| 08/944,850 | October 6, 1997 |
| 09/287,573 | April 6, 1999 |
| 09/574,117 | May 19, 2000 |
| 09/979,247 | April 15, 2002 |
| 10/334,416 | December 31, 2002 |

Pursuant to 37 C.F.R. §1.97(c), enclosed is a check in the amount of \$180.00 as set forth in 37 C.F.R. §1.17(p). While no further fee is believed to be due, if this belief is in error, the Commissioner is authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 50-2319 (Our Order No. 469249-232 (A-66828-1/RMS/DCF/KJC)).

Please direct any calls in connection with this application to the undersigned at (415) 781-1989.

Respectfully submitted,
DORSEY & WHITNEY LLP

Dated: April 29, 2003
Customer Number: 32940
Dorsey & Whitney LLP
Intellectual Property Department
Four Embarcadero Center, Suite 3400
San Francisco, CA 94111-4187
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BY: David C. Foster
David C. Foster, Reg. No. 44,685
for Robin M. Silva, Reg. No. 38,304
Filed under 37 C.F.R. § 1.34(a)



Substitute PTO/SB/8A (08-00)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

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| Substitute for form 1449A/PTO (Modified) INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary) | | Complete if Known | |
| | | Application Number | 09/189,543 |
| | | Filing Date | November 10, 1998 |
| | | First Named Inventor | Chee, M.S. |
| | | Group Art Unit | 1631 |
| | | Examiner Name | Marschel, A. |
| Sheet 1 of 15 | Attorney Docket Number | A-66828-1/RMS/DCF/KJC | |

U.S. PATENT DOCUMENTS

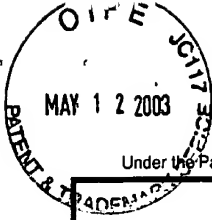
| Examiner Initials* | Cite No. ¹ | U.S. Patent Document Number-Kind Code ² (if known) | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear |
|--------------------|-----------------------|---|-----------------------------|---|---|
| | A1 | 3,712,535 | 01/1973 | Genese, J.N., et al. | |
| | A2 | 3,748,975 | 07/1973 | Tarabocchia | |
| | A3 | 4,125,314 | 11/1978 | Haskell et al. | |
| | A4 | 4,224,198 | 09/1980 | Rembaum et al. | |
| | A5 | 4,448,485 | 05/1984 | Bergman et al. | |
| | A6 | 4,582,789 | 05/1986 | Sheldon, III et al. | |
| | A7 | 4,687,732 | 08/1987 | Ward et al. | |
| | A8 | 4,729,949 | 03/1988 | Weinreb et al. | |
| | A9 | 4,772,540 | 09/1988 | Deutsch et al. | |
| | A10 | 4,842,783 | 06/1989 | Blaylock | |
| | A11 | 4,868,130 | 09/1989 | Hargreaves, W.R. | |
| | A12 | 4,876,187 | 10/1989 | Duck et al. | |
| | A13 | 4,879,097 | 11/1989 | Whitehead, T.P., et al. | |
| | A14 | 4,894,343 | 01/1990 | Tanaka et al. | |
| | A15 | 4,895,805 | 01/1990 | Sato et al. | |
| | A16 | 4,981,783 | 01/1991 | Augenlicht | |
| | A17 | 5,015,843 | 05/1991 | Seitz et al. | |
| | A18 | 5,019,350 | 05/1991 | Rhum et al. | |
| | A19 | 5,026,599 | 06/1991 | Koskenmaki | |
| | A20 | 5,061,336 | 10/1991 | Soane | |
| | A21 | 5,071,531 | 12/1991 | Soane | |

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| Examiner Signature | Date Considered |
|--------------------|-----------------|

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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| Attorney Docket Number | A-66828-1/RMS/DCF/KJC | | |
| Sheet | 2 | of | 15 |

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| U.S. PATENT DOCUMENTS | | | | | |
|-----------------------|-----------------------|---|-----------------------------|---|---|
| Examiner Initials* | Cite No. ¹ | U.S. Patent Document Number-Kind Code ² (if known) | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear |
| | A22 | 5,110,745 | 05/1992 | Kricka et al. | |
| | A23 | 5,126,022 | 06/1992 | Soane et al. | |
| | A24 | 5,135,627 | 08/1992 | Soane | |
| | A25 | 5,176,881 | 01/1993 | Sepaniak et al. | |
| | A26 | 5,177,012 | 01/1993 | Kim et al. | |
| | A27 | 5,185,178 | 02/1993 | Kosenmaki | |
| | A28 | 5,185,243 | 02/1993 | Ullman et al. | |
| | A29 | 5,272,081 | 12/1993 | Weinreb et al. | |
| | A30 | 5,296,375 | 03/1994 | Kricka et al. | |
| | A31 | 5,304,487 | 04/1994 | Wilding et al. | |
| | A32 | 5,308,771 | 05/1994 | Zhou et al. | |
| | A33 | 5,310,674 | 05/1994 | Weinreb et al. | |
| | A34 | 5,342,737 | 08/1994 | Georger, Jr. et al. | |
| | A35 | 5,486,335 | 01/1996 | Wilding et al. | |
| | A36 | 5,498,392 | 03/1996 | Wilding et al. | |
| | A37 | 5,506,141 | 04/1996 | Weinreb et al. | |
| | A38 | 5,518,883 | 05/1996 | Soini | |
| | A39 | 5,541,311 | 07/1996 | Dahlberg et al. | |
| | A40 | 5,545,531 | 08/1996 | Rava et al. | |
| | A41 | 5,585,069 | 12/1996 | Zanzucchi et al. | |
| | A42 | 5,587,128 | 12/1996 | Wilding et al. | |
| | A43 | 5,589,351 | 12/1996 | Harootunian | |
| | A44 | 5,593,838 | 01/1997 | Zanzucchi et al. | |

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| | | Application Number | 09/189,543 | | |
| | | Filing Date | N v m b r 10, 1998 | | |
| | | First Named Inventor | Ch , M.S. | | |
| | | Group Art Unit | 1631 | | |
| | | Examiner Name | Marschel, A. | | |
| Sheet | 3 | of | 15 | Attorney Docket Number | A-66828-1/RMS/DCF |

U.S. PATENT DOCUMENTS

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|--------------------|-----------------------|---|-----------------------------|---|---|
| | A45 | 5,595,915 | 01/1997 | Geysen | |
| | A46 | 5,603,351 | 02/1997 | Cherukuri et al. | |
| | A47 | 5,610,287 | 03/1997 | Nikiforov et al. | |
| | A48 | 5,631,170 | 05/1997 | Attridge | |
| | A49 | 5,631,337 | 05/1997 | Sassi et al. | |
| | A50 | 5,632,876 | 05/1997 | Zanzucchi et al. | |
| | A51 | 5,632,957 | 05/1997 | Heller et al. | |
| | A52 | 5,635,358 | 06/1997 | Wilding et al. | |
| | A53 | 5,637,469 | 06/1997 | Wilding et al. | |
| | A54 | 5,640,234 | 06/1997 | Roth et al. | |
| | A55 | 5,643,738 | 07/1997 | Zanzucchi et al. | |
| | A56 | 5,647,030 | 07/1997 | Jorgenson et al. | |
| | A57 | 5,649,576 | 07/1997 | Kirk | |
| | A58 | 5,660,988 | 08/1997 | Duck et al. | |
| | A59 | 5,671,303 | 09/1997 | Shieh et al. | |
| | A60 | 5,674,698 | 10/1997 | Zarling et al. | |
| | A61 | 5,677,196 | 10/1997 | Herron et al. | |
| | A62 | 5,679,773 | 10/1997 | Holmes | |
| | A63 | 5,681,484 | 10/1997 | Zanzucchi et al. | |
| | A64 | 5,714,330 | 02/1998 | Brenner et al. | |
| | A65 | 5,726,026 | 04/1998 | Wilding et al. | |
| | A66 | 5,747,169 | 05/1998 | Fan et al. | |
| | A67 | 5,747,180 | 05/1998 | Miller et al. | |
| | A68 | 5,750,015 | 05/1998 | Soane et al. | |
| | A69 | 5,755,942 | 05/1998 | Zanzucchi et al. | |

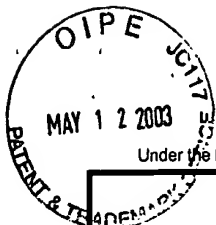
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| | | Filing Date | November 10, 1998 | | |
| | | First Named Inventor | Che, M.S. | | |
| | | Group Art Unit | 1631 | | |
| | | Examiner Name | Marschel, A. | | |
| Sheet | 4 | of | 15 | Attorney Docket Number | A-66828-1/RMS/DCF/KJC |

U.S. PATENT DOCUMENTS

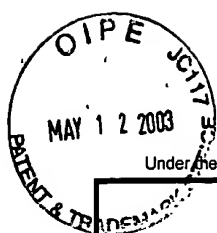
| Examiner Initials* | Cite No. ¹ | U.S. Patent Document Number-Kind Code ² (if known) | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear |
|--------------------|-----------------------|---|-----------------------------|---|---|
| | A70 | 5,770,029 | 06/1998 | Nelson et al. | |
| | A71 | 5,770,157 | 06/1998 | Cargill et al. | |
| | A72 | 5,795,716 | 08/1998 | Chee | |
| | A73 | 5,837,196 | 11/1998 | Pinkel et al. | |
| | A74 | 5,843,655 | 12/1998 | McGall | |
| | A75 | 5,846,842 | 12/1998 | Herron et al. | |
| | A76 | 5,849,215 | 12/1998 | Gin et al. | |
| | A77 | 5,854,033 | 12/1998 | Lizardi | |
| | A78 | 5,863,722 | 01/1999 | Brenner, Sydney | |
| | A79 | 5,866,331 | 02/1999 | Singer et al. | |
| | A80 | 5,874,219 | 02/1999 | Rava et al. | |
| | A81 | 5,876,924 | 03/1999 | Zhang et al. | |
| | A82 | 5,881,200 | 03/1999 | Burt | |
| | A83 | 5,888,885 | 03/1999 | Xie | |
| | A84 | 5,922,617 | 07/1999 | Wang et al. | |
| | A85 | 5,976,797 | 11/1999 | Mitsubishi | |
| | A86 | 5,981,180 | 11/1999 | Chandler et al. | |
| | A87 | 5,985,353 | 11/1999 | Lawton et al. | |
| | A88 | 5,990,479 | 11/1999 | Weiss et al. | |
| | A89 | 6,008,892 | 12/1999 | Kain et al. | |
| | A90 | 6,037,186 | 03/2000 | Stimpson | |
| | A91 | 6,039,894 | 03/2000 | Sanjurjo et al. | |

| | | | |
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| Examiner Signature | | Date Considered | |
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|--------------------|-----------------------|---|-----------------------------|---|---|
| | A92 | 6,045,760 | 04/2000 | Aizawa et al. | |
| | A93 | 6,048,515 | 04/2000 | Kresse et al. | |
| | A94 | 6,048,616 | 04/2000 | Gallagher et al. | |
| | A95 | 6,060,743 | 05/2000 | Sugiyama et al. | |
| | A96 | 6,071,748 | 06/2000 | Modlin et al. | |
| | A97 | 6,074,754 | 06/2000 | Jacobsen et al. | |
| | A98 | 6,087,114 | 07/2000 | Rider | |
| | A99 | 6,090,549 | 07/2000 | Mirzabekov et al. | |
| | A100 | 6,090,553 | 07/2000 | Matson | |
| | A101 | 6,090,666 | 07/2000 | Ueda et al. | |
| | A102 | 6,096,496 | 08/2000 | Frankel | |
| | A103 | 6,100,973 | 08/2000 | Lawandy | |
| | A104 | 6,114,038 | 09/2000 | Castro et al. | |
| | A105 | 6,121,075 | 09/2000 | Yamashita | |
| | A106 | 6,129,896 | 10/2000 | Noonan et al. | |
| | A107 | 6,139,626 | 10/2000 | Norris et al. | |
| | A108 | 6,200,737 | 03/2001 | Walt et al. | |
| | A109 | 6,207,392 B1 | 03/2001 | Weiss et al. | |
| | A110 | 6,210,910 | 04/2001 | Walt et al. | |
| | A111 | 6,261,782 | 07/2001 | Lizardi et al. | |
| | A112 | 6,266,459 | 07/2001 | Walt, D.R. and K.L. Michael | |
| | A113 | 6,268,147 B1 | 07/2001 | Beattie et al. | |

| | | | |
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| Examiner Name | Marschel, A. | | | |
| Sheet 6 of 15 | Attorney Docket Number | A-66828-1/RMS/DCF/KJG | | |

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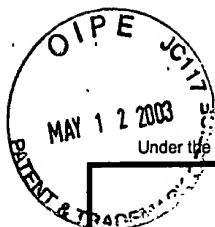
| U.S. PATENT DOCUMENTS | | | | | |
|-----------------------|-----------------------|---|-----------------------------|---|---|
| Examiner Initials* | Cite No. ¹ | U.S. Patent Document Number-Kind Code ² (if known) | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear |
| | A114 | 6,274,323 B1 | 08/2001 | Bruchez et al. | |
| | A115 | 6,280,935 | 08/2001 | Macevicz | |
| | A116 | 6,284,456 | 09/2001 | Jones et al. | |
| | A117 | 6,284,465 B1 | 09/2001 | Wolber | |
| | A118 | 6,285,807 | 09/2001 | Walt, D.R., et al | |
| | A119 | 6,306,643 B1 | 10/2001 | Gentalen et al. | |
| | A120 | 6,327,410 B1 | 12/2001 | Walt, D.R. and K.L. Michael | |
| | A121 | 6,355,431 B1 | 03/2002 | Chee et al. | |
| | A122 | 6,377,721 | 04/2002 | Walt, D.R., and L.C. Taylor | |
| | A123 | 6,396,995 | 05/2002 | Stuelpnagel, E., et al. | |
| | A124 | 6,406,845 | 06/2002 | Walt, D.R., and B.G. Healey | |
| | A125 | 6,429,027 | 08/2002 | Chee, M.S., et al. | |
| | A126 | 6,482,593 | 11/2002 | Walt, D.R., and B.G. Healey | |
| | A127 | 20010029049 | 10/2001 | Walt, D., and T. Dickinson | |
| | A128 | 20020001801 | 01/2002 | Fan, J.B. and M.S. Chee | |
| | A129 | 20020006617 | 01/2002 | Fan, J.B. and M.S. Chee | |
| | A130 | 20020051971 | 05/2002 | Stuelpnagel, J.R., et al. | |
| | A131 | 20020122612 | 09/2002 | Walt, D.R., and K.L. Michael | |
| | A132 | 20020132221 | 09/2002 | Chee, M.S., et al. | |
| | A133 | 20020132241 | 09/2002 | Fan, J.B., et al. | |
| | A134 | 20020150909 | 10/2002 | Stuelpnagel, et al. | |

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| INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary) | | Complete if Known | | | |
| | | Application Number | 09/189,543 | | |
| | | Filing Date | November 10, 1998 | | |
| | | First Named Inventor | Chee, M.S. | | |
| | | Group Art Unit | 1631 | | |
| | | Examiner Name | Marschel, A. | | |
| Sheet | 7 | of | 15 | Attorney Docket Number | A-66828-1/RMS/DCF/KJC |

U.S. PATENT DOCUMENTS

| Examiner Initials* | Cite No. ¹ | U.S. Patent Document Number-Kind Code ² (if known) | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear |
|--------------------|-----------------------|---|-----------------------------|---|---|
| | A135 | 20020172716 | 11/2002 | Walt, D.R., et al. | |
| | A136 | 20020177141 | 11/2002 | Chee, M., and K. Gunderson | |
| | A137 | 20021087515 | 12/2002 | Chee, M.S., et al. | |
| | A138 | 20030003490 | 01/2003 | Fan, J.B., and M.S. Chee | |
| | A139 | 20030016897 | 01/2003 | Walt, D.R., and K.L. Michael | |
| | A140 | 20030027126 | 02/2003 | Walt, D.R., and K.L. Michael | |

FOREIGN PATENT DOCUMENTS

| Examiner Initials* | Cite No. | Foreign Patent Document Country Code ² Number ³ Kind Code ⁴ (if known) | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear | T ⁵ |
|--------------------|----------|---|-----------------------------|---|---|----------------|
| | B1 | JP 01283412 | 09/1991 | Brother Ind Ltd, et al. | | |
| | B2 | UK 2294319A | 04/1996 | Cambridge Imaging Limited | | |
| | B3 | UK 2315130 | 01/1998 | Cambridge Imaging Ltd. | | |
| | B4 | UK 2315131 | 01/1998 | Cambridge Imaging Ltd. | | |
| | B5 | FR 2741357 | 05/1997 | Corning Inc. | | |
| | B6 | EP 0539888A1 | 05/1993 | Shimadzu Corporation | | |
| | B7 | EP 0572157A1 | 12/1993 | Puritan-Bennett Corporation | | |
| | B8 | EP 0799897 | 10/1997 | Affymetrix, Inc. | | |
| | B9 | WO 92/09300 | 06/1992 | Iterex Pharmaceuticals LTD | | |
| | B10 | WO 94/02515 | 02/1994 | Bunsen Rush Laboratories | | |
| | B11 | WO 94/12863 | 06/1994 | Trustees of Tufts College | | |
| | B12 | WO 95/16918 | 06/1995 | Combichem Inc. | | |

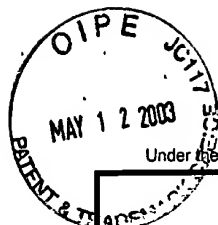
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| | | Group Art Unit | 1631 |
| Examiner Name | Marschel, A. | | |
| Attorney Docket Number | A-66828-1/RMS/DCF/KJC | | |
| Sheet | 8 | of | 15 |

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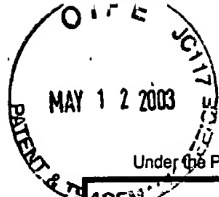
| FOREIGN PATENT DOCUMENTS | | | | | | |
|--------------------------|--------------|---|-----------------------------|---|---|----------------|
| Examiner Initials* | Citation No. | Foreign Patent Document Country Code ² Number ⁴ Kind Code ⁵ (if known) | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear | T ⁶ |
| | B13 | WO 95/21271 | 08/1995 | Molecular Tool Inc. | | |
| | B14 | WO 95/33070A1 | 12/1995 | New York Medical College | | |
| | B15 | WO 96/04547 | 02/1996 | Lockheed Martin Energy Systems, Inc. | | |
| | B16 | WO 96/11878 | 04/1996 | Regents of the Univ. of CA | | |
| | B17 | WO 96/15271 | 05/1996 | Abbott Laboratories | | |
| | B18 | WO 96/36436 | 11/1996 | IRORI | | |
| | B19 | WO 96/40901A1 | 12/1996 | Gen-Probe Inc. | | |
| | B20 | WO 97/12030 | 04/1997 | Nanogen, Inc. | | |
| | B21 | WO 97/13870 | 04/1997 | Heller | | |
| | B22 | WO 97/45559 | 12/1997 | Cornell Research Foundation | | |
| | B23 | WO 98/04746 | 02/1998 | Mount Sinai School of Medicine of CUNY | | |
| | B24 | WO 98/08092 | 02/1998 | Smith Kline Beecham Corp. | | |
| | B25 | WO 98/29736 | 07/1998 | Genometrix Incorporated | | |
| | B26 | WO 98/46797 | 10/1998 | Immunological Associates of Denver | | |
| | B27 | WO 99/00663 | 01/1999 | California Institute of Technology | | |
| | B28 | WO 99/05320 | 02/1999 | Rapigene, Inc. | | |
| | B29 | WO 99/09394 | 02/1999 | Alexion Pharmaceuticals, Inc. | | |
| | B30 | WO 99/28505 | 06/1999 | Curagen Corp. | | |

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| | | | | First Named Inventor | Che , M.S. |
| | | | | Group Art Unit | 1631 |
| | | | | Examiner Name | Marschel, A. |
| Sheet | 9 | of | 15 | Attorney Docket Number | A-66828-1/RMS/DCF/KJC |

FOREIGN PATENT DOCUMENTS

| Examiner Initials* | Cite No. | Foreign Patent Document Country Code ² Number ² Kind Code ⁵ (if known) | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear | T ⁴ |
|--------------------|----------|---|-----------------------------|--|---|----------------|
| | B31 | WO 99/34931 | 07/1999 | Cartesian Technology, Inc. | | |
| | B32 | WO 99/39001 | 08/1999 | Amersham Pharmacia Biotech AB | | |
| | B33 | WO 99/53087 | 10/1999 | Europäisches Laboratorium für Molekularbiologie (EMBL) | | |
| | B34 | WO 00/26411A1 | 05/2000 | Lynx Therapeutics | | |
| | B35 | WO 00/34299A1 | 06/2000 | Biochip Technologies GMBH | | |
| | B36 | WO 00/47767 | 08/2000 | Astrazeneca UK Limited. | | |
| | B37 | WO 00/71992 | 11/2000 | Illumina Inc. | | |
| | B38 | WO 01/12862 | 02/2001 | Illumina, Inc. | | |
| | B39 | WO 01/18524 | 03/2001 | Illumina, Inc. | | |
| | B40 | WO 01/41918 | 06/2001 | Illumina, Inc. | | |
| | B41 | WO 01/46675 | 06/2001 | Illumina, Inc. | | |
| | B42 | WO 01/57268 | 08/2001 | Illumina Inc. | | |
| | B43 | WO 01/57269 | 08/2001 | Illumina Inc. | | |
| | B44 | WO 01/59432 | 08/2001 | Illumina Inc. | | |
| | B45 | WO 01/61043 | 08/2001 | Illumina Inc. | | |
| | B46 | WO 02/00336 | 01/2002 | Illumina Inc. | | |
| | B47 | WO 02/099982 | 12/2002 | Illumina Inc. | | |
| | B48 | WO 02/12897 | 02/2002 | Illumina Inc. | | |
| | B49 | WO 02/16649 | 02/2002 | Illumina Inc. | | |

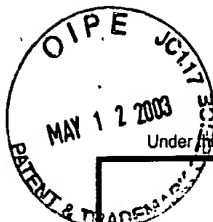
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| | | Group Art Unit | 1631 |
| Examiner Name | Marschel, A. | | |
| Attorney Docket Number | A-66828-1/RMS/DCF/KJC | | |
| Sheet | 10 | of | 15 |

| FOREIGN PATENT DOCUMENTS | | | | | | |
|--------------------------|----------|---|-----------------------------|---|---|----------------|
| Examiner Initials* | Cite No. | Foreign Patent Document Country Code ² Number ³ Kind Code ⁵ (if known) | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear | T ⁶ |
| | B50 | WO 02/21128 | 03/2002 | Illumina Inc. | | |
| | B51 | WO 02/101358 | 12/2002 | Illumina Inc. | | |
| | B52 | WO 03/002979 | 12/2002 | Illumina Inc. | | |
| | B53 | WO 03/006677 | 01/2003 | Illumina Inc. | | |

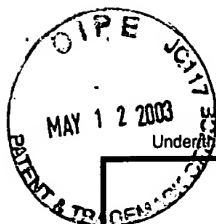
| OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS | | | | | | |
|---|----------|---|--|--|--|----------------|
| Examiner Initials* | Cite No. | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | | | | T ⁶ |
| | C1 | Angel, S., "Optrodes: Chemically Selective Fiber-Optic Sensors," Spectroscopy, 2(4):38-47 (1987) | | | | |
| | C2 | Baner et al., "Signal amplification of padlock probes by rolling circle replication," Nucleic Acids Research, 26(22): 5073-5078 (1998). | | | | |
| | C3 | Barnard et al., "Fiber-Optic Organic Vapor Sensor," Environ. Sci. Technol., 25(7): 1301-1304 (1991) | | | | |
| | C4 | Ben-Dor, A., et al., "Universal DNA Tag Systems: A Combinatorial Design Scheme." J. Compu. Biol. 7(3/4): 503-519 (2000) | | | | |
| | C5 | Birindelli, S. et al., "Comments on Adaptation of the Cellscan Technique for the SCM Test in Breast Cancer," European J. Cancer 33(8):1333-1334 (1997) | | | | |
| | C6 | Brenner, S., et al. "Gene Expression Analysis by Massively Parallel Signature Sequencing (MPSS) on Microbead Arrays." Nature Biotechnology 18: 630-634 (2000) | | | | |
| | C7 | Bruchez et al., "Semiconductor Nanocrystals as Fluorescent Biological Labels," Science, 281: p. 2013-; Sept. 25, 1998 | | | | |
| | C8 | Carey, W.P. et al., "Chemical Piezoelectric Sensor and Sensor Array Characterization," Anal. Chem. 58(14):3077-3084 (1986) | | | | |
| | C9 | Castano, J. et al., "Dynamic Monitoring and Quantification of Gene Expression in Single Living Cells: A Molecular Basis for Secretory Cell Heterogeneity," Mol. Endo. 10(5):599-605 (1996) | | | | |
| | C10 | Chiavaroli, C. et al., "Simultaneous Monitoring of Cytosolic Free Calcium and Exocytosis at the Single Cell Level," J. Neuroendocrinology 3(3):253-260 (1991) | | | | |
| | C11 | Clark, R. et al., "Electrochemical Analysis in Picoliter Microvials," Anal. Chem. 69:259-263 (1997) | | | | |
| | C12 | Danielson et al., "A Combinatorial Approach to the Discovery and Optimization of Luminescent Materials," Nature, 389:944-948 (1997). | | | | |

| | |
|--------------------|-----------------|
| Examiner Signature | Date Considered |
|--------------------|-----------------|

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| | | Filing Date | N v m b r 10, 1998 | | |
| | | First Named Inventor | Che , M.S. | | |
| | | Group Art Unit | 1631 | | |
| Sheet | 11 | of | 15 | Examiner Name | Marschel, A. |
| | | | | Attorney Docket Number | A-66828-1/RMS/DCF/KJC |

| OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS | | | |
|---|----------|---|----------------|
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| | C13 | DeForest, W.S., "Photoresist Materials and Processes," McGraw-Hill Book Company, New York. 89101 (1975) | |
| | C14 | Deutsch, M. et al., "Apparatus for high Precision Repetitive Sequential Optical Measurement of Living Dells," Cytometry 16:214-226 (1994) | |
| | C15 | Deutsch, M. et al., "Lymphocyte Fluorescence Polarization Measurements with the Cellscan System: Application to the SCM Cancer Test," Cytometry 23:159-165 (1996) | |
| | C16 | Dickinson et al., "Generating Sensor Diversity Through Combinatorial Polymer Synthesis," Analytical Chemistry, 69(17): 3413-3418 (1997) | |
| | C17 | DiMarco, G. et al., "Luminescent Ru ^{II} -Polypyridine Complexes in Poly-2-Hydroxyethylmethacrylate Matrices as Oxygen Sensors," Adv. Mater., 7(5):(1995) | |
| | C18 | Egner, B.J., et al., "Tagging in Combinatorial Chemistry: The Use of Coloured and Fluorescent Beads." Chem. Commun. (1997) | |
| | C19 | Fan, J.B., et al., "Parallel Genotyping of Human SNPs Using Generic High-density Oligonucleotide Tag Arrays." Genome Research, 10:853-860 (2000) | |
| | C20 | Fathi, et al., "Synthesis and Properties of Combinatorial Libraries of Phosphoramidates," J. Org. Chem. Soc. 61(16): 5600-5609 (1996) | |
| | C21 | Fodor, S. et al., "Light-Directed, Spatially Addressable Parallel Chemical Synthesis," Science, 251:767-773 (1991). | |
| | C22 | Freeman, T. et al., "Oxygen Probe Based on Tetrakis(alkylamino)ethylene Chemiluminescence," Anal. Chem., 53:98102 (1981) | |
| | C23 | Gauci, M. et al., "Observation of Single-Cell Fluorescence Spectra in Laser Flow Cytometry," Cytometry 25:388-393 (1996) | |
| | C24 | Gerry, N.P., et al., "Universal DNA Microarray Method for Multiplex Detection of Low Abundance Point Mutations." J. Mol. Biol. 292:251-262 (1999) | |
| | C25 | Grime, G.W., Non-Silver Photographic Processes, Proceedings of the Symposium on Non-Silver Photographic Processes Held at New College, Oxford, September, 1973. "Holographic Diffraction Gratings Recorded in Photoresist," P. 275-284 (1973) | |
| | C26 | Gunderson, K.L., "Mutation Detection by Ligation to Complete n-mer DNA Arrays." Genome Research 8:1142-1153 (1998) | |
| | C27 | Hafeman, D. et al., "Light-Addressable Potentiometric sensor for biochemical systems," Science, 240:1182-1185 (1988) | |
| | C28 | Hirschhorn, J.N., et al., "SBE-TAGS: An Array-Based Method for Efficient Single-Nucleotide Polymorphism Genotyping." PNAS 97(22): 12164-12169 (2000) | |

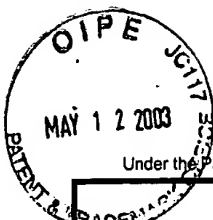
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| | | First Named Inventor | Ch e, M.S. | | |
| | | Group Art Unit | 1631 | | |
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| | C29 | Hogan, B. et al., "Single-cell Analysis at the Level of a Single Human Erythrocyte," Trends in Analytical Chemistry 12(1):4-9 (1993) | |
| | C30 | Hsuih, T. et al., "Novel, Ligation-Dependent PCR Assay for Detection of Hepatitis C Virus in Serum," Journal of Clinical Microbiology, Mar. 1996, 34(3): 501-507 (1996) | |
| | C31 | Huang, L. et al., "Exploring Single-cell Dynamics Using Chemically-modified Microelectrodes," Trends in Analytical Chemistry 14(4):158-164 (1995) | |
| | C32 | Hubert, C. et al., "Design of a Solvatochromic Polymer-Based Fiber Optics Chemical Sensor for Polar Solvent Detection," Adv. Mater., 7(11): 914-917 (1995) | |
| | C33 | Illumina Inc. "Emerging," Windhover's In Vivo, The Business and Medicine Report, pg. 1-2 (September 1998) | |
| | C34 | Ince, C. et al., "A Micro-Perfusion Chamber for Single-Cell Fluorescence Measurements," Journal of Immunological Methods 128:227-234 (1990) | |
| | C35 | Jacobs, J. et al., "Combinatorial chemistry - applications of light-directed chemical synthesis," TIBTECH, 12:19-26 (1994) | |
| | C36 | Koop, A. et al., "Continuous Bioluminescent Monitoring of Cytoplasmic ATP in Single Isolated Rat Hepatocytes During Metaboli Poisoning," Biochem. J. 295:165-170 (1993) | |
| | C37 | Lam, K.S., "The 'One-Bead-One-Compound' Combinatorial Library Method," Chem. Rev. 97(2): 411-448 (1997) | |
| | C38 | Levy, U. et al., "Direct Picture Transmission in a Single Optical Fiber with Holographic Filters," Optics Communications, 30(2):163165 (1979) | |
| | C39 | Lin et al., "A porous silicon-based optical interferometric biosensor," Science, 278:840-843 (1997) | |
| | C40 | Lin, Z. et al., "Multiplex genotype determination at a large number of gene loci," Proc. Natl. Acad. Sci. USA, 93: 2582-2587, Mar. 1996 | |
| | C41 | Lippitsch, M. et al., "Fibre-Optic Oxygen Sensor with the Fluorescence Decay Time as the Information Carrier," Anal. Chem. Acta., 205:1-6 (1998) | |
| | C42 | Lizardi et al., "Mutation detection and single-molecule counting using isothermal rolling-circle amplification," Nature Genetics, 19: 225-232 (July 1998). | |
| | C43 | Loneragan, M.C., "Array-Based Vapor Sensing Using Chemically Sensitive, Polymer Composite Resistors," IEEE Aerospace Applications Conference Proceedings , 3(8):583-631 (1997) | |
| | C44 | Lubbers, D. et al., "Optical Fluorescence Sensors for Continuous Measurement of Chemical Concentrations in Biological Systems," Sens. Actuators, 4:641-654 (1983) | |
| | C45 | Lundstrom, I. et al., "Artificial 'olfactory' images from a chemical sensor using a light-impulse technique," Nature, 352:47-50 (1991). | |

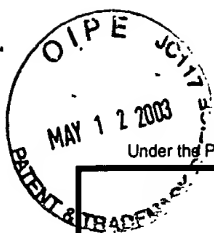
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| | | Filing Date | November 10, 1998 | | |
| | | First Named Inventor | Chen, M.S. | | |
| | | Group Art Unit | 1631 | | |
| | | Examiner Name | Marschel, A. | | |
| Sheet | 13 | of | 15 | Attorney Docket Number | A-66828-1/RMS/DCF/KJC |

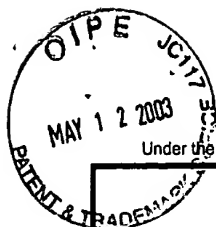
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| | C46 | Luong, J. et al., "Fluorescence Sensors for Monitoring Bioprocesses," Practical Fluoro, ed. G.G. Guilbault, 2nd Ed., Marcel Dekker. 775-793 (New York 1990) | |
| | C47 | McConnell, et al., "The Cytosensor Microphysiometer: Biological Applications of Silicon Technology," Science 257:1906-1912 (September 1992) | |
| | C48 | Metzker, M. et al., "Termination of DNA synthesis by novel 3'-modified-deoxyribonucleoside 5'-triphosphates," Nucleic Acids Research, 22(20):4259-4267 (1994) | |
| | C49 | Milanovich et al., "Clinical Measurements Using Fiber Optics and Optrodes," Novel Optical Fiber Techniques for Medical Application, SPIE, 494:1831 (1984) | |
| | C50 | Miyawaki, A. et al., "Fluorescent Indicators for Ca ²⁺ Based on Green Fluorescent Proteins and Calmodulin," Nature 388:882-887 (August 1997) | |
| | C51 | Mrksich, M. et al., "Controlling Cell Attachment of Contoured Surfaces with Self-Assemble Monolayers of Alkanethiolates on Gold," Proc. Natl. Acad. Sci. USA 93:10775-10778 (October 1996) | |
| | C52 | Munkholm, C. et al., "A Fiber-Optic Sensor for CO ₂ Measurement," Talanta, 35(2):109112 (1988) | |
| | C53 | Munkholm, C. et al., "Polymer Modification of Fiber Optic Chemical Sensors as a Method of Enhancing Fluorescence Signal for pH Measurement," Anal. Chem., 58:14271430 (1986) | |
| | C54 | Normie, L. "System Uses Photonics for Early Tumor Detection," Biophotonics International 24-25 (September/October 1996) | |
| | C55 | Owicki, J. et al., "Bioassays with a Microphysiometer," Nature 344:271-272 (March 1990) | |
| | C56 | Owicki, J. et al., "The Light-Addressable Potentiometric Sensor: Principles and Biological Applications," Annu. Rev. Biophys. Biomol. Struct. 23:87-113 (1994) | |
| | C57 | Owicki, J. et al., "Continuous Monitoring of Receptor-Mediated Changes in the Metabolic Rates of Living Cells," Proc. Natl. Acad. Sci. USA 87:407-4011 (1990) | |
| | C58 | Pantano, P. et al., "Analytical Applications of Optical Imaging Fibers," Anal. Chem., 67:481A-487A (1995) | |
| | C59 | Parce, J. et al., "Biosensors for Directly Measuring Cell Affecting Agents," Ann. Biol. Clin. 48:639-641 (1990) | |
| | C60 | Parce, J. et al., "Detection of Cell-Affecting Agents with a Silicon Biosensor," Science 246:243-247 (October 1989) | |
| | C61 | Park, M. et al., "Block Copolymer Lithography: Periodic Arrays of ~10 ¹¹ Holes in 1 Square Centimeter," Science 276:1401-1404 (May 1997) | |
| | C62 | Plunkett, M. et al., "Combinatorial Chemistry and New Drugs," Scientific American, April 1997, 69-73. | |
| | C63 | Rahmani, et al., "Adaption of the Cellscan Technique for the SCM Test in Breast Cancer," European J. Cancer 32A(10): 1758-1765 (1996) | |

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| | C64 | Rosenzweig, Z. et al., "Analytical properties of miniaturized oxygen and glucose fiber optic sensors," Sensors and Actuators, B 35-36, 475-483 (1996) | |
| | C65 | Saari et al., "pH Sensor Based on Immobilized Fluoresceinamine," Anal. Chem., 54:821-823 (1982) | |
| | C66 | Schwab, S. et al., "Versatile, Efficient Raman Sampling with Fiber Optics," Anal. Chem., 56:2199-2204 (1984) | |
| | C67 | Seitz, W. R., "Chemical Sensors Based on Fiber Optics," Anal. Chem., 56(1):1634A (1984) | |
| | C68 | Seitz, W.R. et al., "Chemical Sensors Based on Immobilized Indicators and Fiber Optics," C.R.C. Critical Reviews in Analytical Chemistry, 19(2):135173 (1988) | |
| | C69 | Seradyn, Sera-Mag Streptavidin Magnetic Microparticles, Particle Technology, November 1996, pp. 1-7. | |
| | C70 | Shear, J. et al., "Single Cells as Biosensors for Chemical Separations," Science 267:74-77 (1995) | |
| | C71 | Slides presented by Illumina at Cambridge Healthtech Institute's Implications of Human Genetic Variation - SNP's, Polymorphisms, Diseases & Treatment. November 18-19, 1998, Waltham, Massachusetts | |
| | C72 | Smith, L., et al., "Fluorescence detection in automated DNA sequence analysis," Nature, 321, 674-679 (1986) | |
| | C73 | Still, W.C., et al., "Discovery of Sequence-Selective Peptide Binding by Synthetic Receptors Using Encoded Combinatorial Libraries," Acc. Chem. Res. 29(3): 155-163 (1996) | |
| | C74 | Syvanen, Anne-Christine. "From gels to chips: "Minisequencing" Primer Extension for Analysis of Point Mutations and Single Nucleotide Polymorphisms," Human Mutation, 13:1-10 (1999). | |
| | C75 | Tong, W. et al, "Monitoring Single-cell Pharmacokinetics by Capillary Electrophoresis and Laser-induced native Fluorescence," J. Chromatography B. 689:321-325 (1997) | |
| | C76 | Venton, D. et al., "Screening combinatorial libraries," Chemometrics and Intelligent Laboratory Systems, NL, Elsevier Science Publishers, Amsterdam, 48(2) 131-150 (1999) | |
| | C77 | Walt, D. et al., "Design, Preparation, and Applications of Fiber-Optic Chemical Sensors for Continuous Monitoring," Fiber Optic Chemical Sensors, Chemical Sensors and Microinstrumentation, 252-272 (1989) | |
| | C78 | White, J. et al., "Rapid Analyte Recognition in a Device Based on Optical Sensors and the Olfactory System," Analytical Chemistry, 68(13): 2191-2201 (1996) | |
| | C79 | Wightman, R.M. et al., "Monitoring Catecholamines at Single Cells," Trends in Analytical Chemistry 14(4):154-158 (1995) | |
| | C80 | Wolfbeis, O. et al., "Fiber-Optic Fluorosensor for Oxygen and Carbon Dioxide," Anal. Chem., 60:2028-2030 (1998) | |
| | C81 | Wolfbeis, O., "Fiber Optical Fluorosensors in Analytical and Clinical Chemistry," Molecular Luminescence Spectroscopy, Methods and Applications (S.G. Schulman, editor), Wiley & Sons, New York, 129-280 (1988) | |

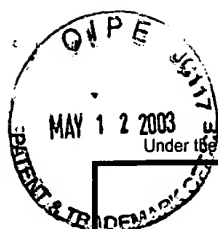
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| | C82 | Wong, K. et al., "Simultaneous Monitoring of Glutathione and Major Proteins in Single Erythrocytes," Mikrochim. Acta. 120:321-327 (1995) | |
| | C83 | Xiang, X. et al., "A Combinatorial Approach to Materials Discovery," Science, 268:1738-1740 (1995). | |
| | C84 | Yeung, E.S. "Chemical Analyses of Single human Erythrocytes," Acc. Chem. Res. 27:409-414 (1994) | |
| | C85 | Zare, R.N., "Making a Biosensor from a Cell and a Fluorescent Dye," Biophotonics International, 17 (March/April 1995) | |
| | C86 | Zellers, E. et al., "Optimal Coating Selection for the Analysis of Organic Mixtures with Polymer-Coated Surface Acoustic Wave Sensor Arrays," Analytical Chemistry . 67(6): 1092-1106 (1995) | |
| | C87 | Zhang et al., "A Combinatorial Method for the Solid Phase Synthesis of Alpha-Amino Phosphates and Phosphonic Acids," Tetrahedron Letter, 37(31): 5457-5460 (1996). | |
| | C88 | Zhujun, Z. et al., "A Fluorescence Sensor for Quantifying pH in the Range for 6.5 to 8.5," Anal. Chem. Acta., 160:47-55 (1984) | |
| | C89 | Zurgil, N. et al., "Intracellular Fluorescence Polarization Measurements by the Cellscan System: Detection of Cellular Activity in Autoimmune Disorders," Isr. J. Med. Sci. 33:273-279 (1997) | |
| | C90 | | |
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